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I.—THE *SIŚ* AND *SA* AORISTS (6TH AND 7TH AORIST-FORMS) IN SANSKRIT.

The sibilant or sigmatic aorist, which in Greek has such an engaging uniformity, exhibits in Sanskrit, as is well known, not less than four varieties. They may, for clearness, be briefly recapitulated here.

I. (4th aorist-form.) An *s* is added to the (usually strengthened) root, to make a stem which is then inflected like any augment-preterit of the first general conjugation: thus, root *prā*, stem *prā-s*, aor. (1st persons) *a-prās-am*, *a-prās-va*, *a-prās-ma*; *a-prās-i*, *a-prās-vahi*, *a-prās-mahi*.

II. (5th aorist-form.) A vowel *i* appears before the added *s* (which then, by ordinary euphonic rule, becomes *si*), and the inflection is as above: thus, root *bādh*, stem *bādh-iś*, aor. *a-bādhīś-am* etc., *a-bādhīś-i* etc.

III. (6th aorist-form.) Before the *īś* of the preceding form appears another *s*, making the aorist-sign *siś*; the inflection is the same: thus, root *yā*, stem *yā-siś*, aor. *a-yāsiś-am* etc., *a-yāsiś-i* etc.

IV. (7th aorist-form.) A sibilant immediately follows the root, but it takes an added *a*, making the aorist-sign *sa*; then the inflection is (with certain exceptions, to be pointed out below) that usual in an augment-preterit of an *a*-stem, or ah imperfect of the second general conjugation: thus, root *ruh*, stem *ruk-ṣa*, aor. (3d persons) *a-rukṣa-t*, *a-rukṣa-tām*, *a-rukṣa-n*; mid. *a-rukṣa-ta*, [*a-rukṣā-tām*,] *a-rukṣa-nta*.

Upon this peculiar state of things, and its explanation, considerable ingenuity has been expended. The object of the present paper is not primarily genetical; it is, rather, to help clear the

ground for a successful genetic explanation, by setting forth with all attainable completeness the facts of the occurrence of the *siṣ* and *sa* aorists in the Sanskrit language. It is true here, as everywhere else, that, in order to judge correctly the value of a given formation in the history of a body of related languages, one must understand its position and value in the particular language in which it appears; and for lack of attention to this rule a great deal of false linguistic history has been written. The facts in regard to these aorists were in the main given in the writer's Sanskrit Grammar; but they can now be presented with considerably greater completeness, and deserve a more detailed treatment.

It is plain, in the first place, that the two forms of sigmatic aorist here in question are quite exceptional in their occurrence, as compared with the other two. The *s*-aorist and the *is*-aorist are the predominant forms, each being made from roots of every variety of phonetic character; while the other two are, even by the Hindu grammarians, restricted to special classes of roots. According to my collections,¹ there are found to occur in the whole body of the Sanskrit literature 145 *s*-aorist stems (of which 99 appear only in the older language, 9 only in the later, 37 in both), and 174 *is*-aorist stems (123 in the older language, 16 in the later, 21 in both); of the other two classes, less than a score each. The details for the latter are as follows :

THE *Siṣ*-AORIST.

Personal forms of this class are made in the Veda from six roots: from three of these, in some variety; from the remaining three, only a single form each. Thus:

1. Root *2gā* 'sing.' From this occur in the Rig-Veda the 3d pl. act. *agāsiṣus* and the 3d sing. subj. act. *gāsiṣat*, once each. The other Vedas have nothing further; but additional forms—*agāsiṣam*, *agāsiṣ*, *agāsiṣit*, and the augmentless *gāsiṣus*—are found throughout the Brāhmaṇas and Upanishads; the forms are common enough not to call for detailed reference. No occurrences are known to me in the Sūtras or in the later literature.

From the same root occurs twice in RV. the augmentless 1st sing. mid. *gāsi* (so understood by all the authorities), which is a form of the *s*-aorist.

¹ See my statistical work, "Sanskrit Roots, Verb-Forms, and Primary Derivatives," now just leaving the press at Leipzig.

2. Root *īyā* 'go.' The Rig-Veda presents a greater variety of forms from this root: *ayāsiṣam*, *āyāsiṣṭa*, *ayāsiṣus*, *yāsiṣṭām* (2d du.), *yāsiṣṭa*,¹ the subj. *yāsiṣṭat*; and, in the middle, the precative optative *yāsiṣiṣṭhās*: they appear in all ten times. Several of the same forms occur later: *e. g.* *ayāsiṣam* in Brāhmaṇa, Sūtra, and epos, and *yāsiṣiṣṭhās*, repeated in two Brāhmaṇas (Tāitt. S. and Kāth.); and the 3d du. *ayāsiṣṭām* in three Brāhmaṇas (VS. xxviii 14, etc.) Besides, the 3d sing. *ayāsiṣṭ*, which (see below) might equally belong to the *s*-aorist, is found three times in RV., and also in the Brāhmaṇas, the epos, and the later language. In these later occurrences, it may plausibly be supposed to have been, in the estimation of those who used it, a *siś*-aorist form; but in RV. it has beside it the unmistakable *s*-aorist forms *ayāsam* and *āyās*, and the subj. *yāsat* (also TB. ii 8.3⁸); so that its classification there is a matter of doubt.

3. Root *īhā* 'leave.' No *siś*-forms from this root occur in the Rig-Veda; but in the Atharvan they are found 8 times: namely, *hāsiṣṭam*, *-ṣṭām*, *-ṣṭa*, *-ṣus*. The 1st sing., also augmentless, *hāsiṣam*, shows itself in half a dozen Brāhmaṇas and in the epos, as do some of the AV. forms. The forms of doubtful classification, *ahāsiṣ* and *ahāsiṣṭ* and the same without augment, are quotable in a few occurrences, from the AV. all the way down to the classical language; and beside them not only RV. puts the plain *s*-aorist forms *ahās*, *hās*, *hāsus*, but the epos has once *ahāsma* (MBh. v. 3425).

4. The secondary root *pyā*, from *pi* or *pi* 'fill up, be fat' (pres. *pyāyate* etc.), which is found in use from the Rig-Veda down, makes the solitary *siś*-form *pyāsiṣṭmahi*. This occurs once in the Atharvan (the MSS, however, reading *pyāciṣ-*), and also in a phrase (*vardhiṣīmdhi ca vaydm ā ca pyāsiṣṭmahi*) which is repeated in several Brāhmaṇa and Sūtra texts (VS. ii 14; xxxviii 21: CGS. ii 10; CGS. i 12.12). Āpastamba (iii 4.6), however, reads in the same formula *pyāyīṣīmahi*, an *iṣ*-aorist form of a variety that is not without its parallels elsewhere.

5. Root *ram* 'be gratified.' This root is one of the three ending in a nasal ("*nam*, *yam*, and *ram*") from which the Hindu grammarians allow the *siś*-aorist to be made. Hence *araṇiṣṭ*, occurring once in the drama (Utt. Rām.), is doubtless best to be referred hither, rather than to the *s*-aorist, from which come in the

¹ The long *ī* in this form is without parallel elsewhere; and the metre of the quarter-verse is so wrong that a corrupt reading may be suspected.

Veda the (middle) forms *raṁsthās*, *araṁsta*, *araṁsata*. The only unmistakable *siṣ*-form met with is *raṁsiṣam*, given once by the Sāma-Veda (i 310), as variant for Rig-Veda (vii 32.18) *rāsiya* (the SV. version of the line is shown by its spoiled metre to be a corruption).

6. Root *van* 'win.' The Atharva-Veda has twice (ix 1.14; xvi 9.4) *vaṇsiṣiṣya*, which, beyond all question, is to be emended to *vaṇsiṣiṣya*, and referred to this root (the substitution of *ṣ* for *ś* in the Atharvan manuscripts is by no means uncommon). That the Hindu grammar does not permit a *siṣ*-aorist from this root is a matter of no moment. From the same root are made in the Veda both *s*-aorist and *iṣ*-aorist forms; and it exhibits an unusual variety of "precative" formations: namely, besides *vaṇsiṣiṣya*, also *vaṇiṣiṣṭa* and *vaṇsimahi* and *vasimahi* (all in RV.).

This is the whole Vedic material.

7. Root *jñā* 'know.' This root makes *s*-aorist forms, both active (*ajñāsam*) and middle (*ajñāsthās*), in the Atharva-Veda and in more than one of the Brāhmaṇas. But also, beginning with the latter class of writings, it has a *siṣ*-aorist, of which, owing to the frequency of the root in use, a number of forms are quotable: namely, *ajñāsiṣam*, *-sīt*, *-siṣma*, *-siṣṭa*, and the augmentless *jñāsiṣam*, *-sus*; they are found a few times also in the epic and classical literature.

From any other root, only sporadic forms are made. Thus:

8. Root *jyā* 'overpower.' The form *ajyāsiṣṭām* (3d du.) appears to occur in the Brāhmaṇas: namely, in Pañc. Br. xxi 1 (where, however, both text and comment have in the published edition the absurd reading *ijyāsrṣṭām*) and Jāim. Br. ii 249 (a corresponding passage: the manuscript reads *ajjāsiṣṭām*).

9. Root *dhyā* 'think.' A single form, *adhyāsiṣam* (but the edition reads *adhāsiṣam*), occurs once in the Çat. Br., at VI, ii 1.7.

10. Root *bhuj* 'enjoy.' The very exceptional form *bhukṣiṣya* appears in a phrase (*tan māṁ avatu tan mā viçatu tena bhukṣiṣya*) which is found at the beginning of the Pañc. Br. (i 1), and also in Āpastamba (x 1.4) and Āçv. Grh. Sū. (i 23.19). If we met with *bhaksiṣiṣya*, we should call it an *iṣ*-aorist form from the secondary root *bhakṣ*, from *bhaj*; but there are no other signs of a secondary root *bhukṣ*.

Along with this may be mentioned also the solitary Rig-Veda word *ākṣiṣus* (i 163.10), which is related to root 1 *aç* very much as *bhukṣiṣya* to *bhuj*, and which Grassmann puts under 1 *aç*, while I

have preferred to refer it to the secondary root *ta*ks, since there are other forms which call for the assumption of such a root.

11. Root *mnā* 'mention.' The Nirukta (i 20) has once *amnā-siṣus*.

From the other roots to be mentioned, no forms are made which might not equally well be derived from the *s*-aorist stem. In the 2d and 3d sing. active, namely, the forms of the *s*-aorist and the *siṣ*-aorist, according to the later usages of the language, are identical. Thus, for example :

| | | | | | | |
|-----------------|---|---------------|----------------------|---|----------------------|--------------------|
| <i>ayāsam</i> | { | <i>ayāsiṣ</i> | <i>ayāsit</i> | { | <i>ayāsva</i> etc. | <i>ayāsma</i> etc. |
| <i>ayāsiṣam</i> | | | <i>ayāsiṣva</i> etc. | | <i>ayāsiṣma</i> etc. | |

As is pointed out in my Sanskrit Grammar, however (§§ 888-90 : I had, so far as I know, been the first to call attention to the fact, and classify the resulting forms correctly, in the Proceedings of the Am. Oriental Soc. for May, 1876 ; Journ. Am. Or. Soc., Vol. X, p. cxxv), the earliest language had no such 2d and 3d singulars from the *s*-stem, but made in both, *e.g.*, *ayās* (for *ayās-s* and *ayās-t*) ; forms with the inserted *i* begin to appear in the Atharva-Veda and the Brāhmaṇas, and become gradually prevalent, and then exclusively used. If any aorist-forms in *sis* and *sit*, then, occurred in the Rig-Veda (as is not the case), made from roots which are allowed, or later exhibit, the *siṣ*-formation, we should have to refer them to the *siṣ*-aorist ; in the Brāhmaṇas and later, the classification is in every case questionable ; but with a presumption in favor of the *s*-aorist in the older language, and in favor of the *siṣ*-aorist in the later.

12-14. Forms of this doubtful character (besides those already mentioned) are quotable from only three roots in the older language : they are *adrāsit* Kāth. (xxviii 4), *avāsit* Čat. Br. (X, iii 3.8) and Jāim. Up. Br. (2), and *ahvāsit* Gop. Br. (i 3.4). In none of these cases are there found further aorist-forms to help determine their reference to the one aorist or to the other.

15-19. The remaining single forms, found in the later language only, and therefore referable without much question to the *siṣ*-aorist, are *glāsiṣ* MBh., *adhmāsiṣ* Hariv., *anāsiṣit* Čiçup., *apāsiṣit* Rāj. Tar., *mlāsiṣ* MBh.

To sum up : Forms referable with more or less certainty to the *siṣ*-aorist are quotable in Sanskrit from 19 roots : in the oldest language (Rig-Veda) from 2 only ; in the later Veda and Brāhmaṇa, from only 2 in more than single sporadic forms, from 6 others in

single forms of unquestionable character, and 3 of questionable; finally, single examples from 6 roots in the later language alone, the forms of only one of them unquestionable. Only 3 roots show forms both in the earlier and in the later language.

What is to be inferred from these facts does not, to my mind, admit of any reasonable question. The first *s* of the tense-sign *siṣ* is an adscititious sibilant added to the root—from which, then, as thus increased, the ordinary *iṣ*-aorist is made. No reduplication of a combined auxiliary, or anything else of an organic character, is plausibly to be seen in it. Yet there is probably an identity of origin between the two sibilants. That is to say, the adscititious sibilant is most likely to be the aoristic *s* itself: an *s*-aorist stem has been made the starting-point of a new quasi-radical formation. Roots of a secondary character with final sibilant are far from rare in Sanskrit. It has been usual to regard some of them as of "desiderative" origin; and doubtless with good reason; but, apart from the probable identity of origin between the desiderative and the aoristic *s*, there are many cases where any characteristic of desiderative formation is wanting. One has to admit in the Veda a root-form *rās* beside *rā* 'give'; and it is obviously a development from the *s*-aorist formation. In like manner, beside *hā* stands *hās*, which has a so far differentiated character as to be reckoned a separate root. So *hās* appears to be similarly related to *hā*. These are the examples of most value, because of their relation to the class of roots (ending in *ā*) from which the *siṣ*-aorists especially come. As regards roots with final consonants, the cases of *bhukṣiṣya* and *ākṣiṣus* have been already commented on. To go through the list of roots with final sibilant, and discuss their character, would take us too far, and belongs to a special inquiry, directed to another end than the one now in view. But the cases already referred to, taken in connection with the sporadic nature of the whole *siṣ*-aorist formation, are enough to settle the question as to the probable derivation of the latter.

THE *Sa*-AORIST.

We will take up the roots making forms of this aorist nearly in the order of the frequency of the forms.

1. Root *duh* 'milk, draw forth.' The Rig-Veda forms from this root are quite numerous and of considerable variety. It will be enough simply to enumerate them here. Active, *ddhukṣat*, *ddhukṣan*,

dhukṣan; and, with *d* instead of the regular *dh*, *adukṣat*, *dukṣas*, *dukṣán*: middle, *ádhukṣata*, *dhúkṣata* (accent !), *dhukṣánta*, *dhukṣásva*; and *dukṣata*: the whole number of occurrences is seventeen. It may be remarked that the forms are more than once (i 33.10; x 149.1) used with the value of an imperfect; and that the whole formation appears to verge upon that of a secondary conjugation, with secondary root-form *dukṣ* or *dhukṣ*. The Atharva-Veda adds nothing to this material. But in the Brāhmaṇas appear *adhuksas* (Çat. Br. I, vii 1.17, and the same phrase in Māit. S., and nearly the same in Āpast. i 13.3) and *adhuksan* Tāitt. S. ii 5.3^{3,4}, both distinctly aoristic in value; and then, in the later language, Bhāg. Pur. has *adhuksan* (iv 18.17,23).

Of forms of the *s*-aorist (middle), the Rig-Veda shows *adhuksata* (3d pl.), and the Bhāg. Pur. has the same (at iv 18.18); and *dhukṣimáhi* is found in Tāitt. S. i 6.4³ (and the corresponding passage in Māit. S.), and Kāth. xix 13.

2. Root *mrj* 'wipe.' According to the Hindu grammarians, this root has no right to make a *sa*-aorist, the privilege being limited to roots ending in *ç* or *ś* or *h*. In fact, however, more *sa*-forms come from it in the older language than from any other root excepting *duh*. In the Rig-Veda we find, of active forms, *amṛkṣāma* and *mrkṣatam* (2 du. impv.); of middle, *amṛkṣanta*: the occurrences are five. In the Brāhmaṇa and Sūtra language, we have *amṛkṣat* in Kāth. xxxv 3 (*bis*), and Āpast. ix 17.4 (rather from *mrç*?), and *mrkṣam* and *mrkṣas* in several texts: *e. g.* Tāitt. S. i 1.10¹; Ait. Br. iii 8.3. In the later language, *amṛkṣata* (3d sing.) in the Mahābh. (xiii 1486) is referred in the Petersburg lexicon both to *mrj* and to *mrkṣ*, with hesitating preference for the latter—which we may perhaps best share.

3. Root *mrç* 'feel of, touch.' A *sa*-aorist identical in form with the preceding is in use from this root also. The Rig-Veda has *mrkṣas* and *mrkṣata* (2d pl.), each once; and the Atharvan has *amṛkṣat* once. The only other form I am able to quote is *amṛkṣas*, in the Mahābh. (iii 1369).

4. Root *ruh* 'ascend.' For this root I can quote forms only from the older language. In Rig-Veda occurs once *arukṣat*. The Atharvan has *arukṣas*, *-ṣat*, *-sāma*, and the augmentless *rukṣas*; and *arukṣat*, *-ṣan* are found in several of the Brāhmaṇas (*e. g.* Çat. Br. XII, iv 2.7; Māit. S. i 6.13), and *rukṣata* in Jāim. Br. iii 152. The only other aorist formation from this root is the *a*-aorist, *aruham -he*, etc., and it is found occurring in all periods of the language.

5. Root *spr̥ç* 'touch.' Examples are quotable for this root also only from the earlier language: the Atharvan has *aspr̥kṣat* once; and the same form, and *aspr̥kṣas*, -ṣan, are quotable from three different Brāhmaṇas (e. g. Vāj. S. vi 2; xxviii 18,20). An example or two of the *s*-aorist, *aspr̥kṣam* and *spr̥kṣis*, are met with in the Brāhmaṇa and *epos*.

6. Root *vr̥h* 'tear out.' From this root occur *avr̥kṣāma* Tāitt. Br. i 5.2⁸, and *avr̥kṣat* Jāim. Br. i 188, in connections which make their reference to it wholly clear; *sam-avr̥kṣat* in Māit. S. i 8.9 (*bis*) also belongs here (although, in my conspectus of forms, I put it under *vr̥j*); but *avr̥kṣam* in Rig-Veda x 159.5 is perhaps best put under root *vr̥j*, with Grassmann and the Petersburg lexicon, although its being active makes the case very questionable.

7. Root *vr̥j* 'twist.' The doubtful Rig-Veda form *avr̥kṣam*, just spoken of, is the only one quotable for this root. As we were obliged to admit *sa*-forms from *mr̥j*, above, we need not hesitate here also to acknowledge one as coming from a root in final *j*. The other aorist forms of *vr̥j* are of the root-aorist and the *s*-aorist; they occur both in *Veda* and in Brāhmaṇa texts.

8. Root *dviṣ* 'be hostile.' This root furnishes only in the Atharva-Veda the two augmentless forms *dviṣat* act., and *dviṣata* mid., the former in a single passage, the latter in a phrase (*mā' no dviṣata kīc canā*) which is repeated several times. No other aorist forms from it occur.

9. Root *kṛṣ* 'draw.' Here, too, we have both an active and a middle form: *akṛṣat* in Māit. S. i 10.17 (and Kāth.); *akṛṣathās* in Çat. Br. XI, vii 2.2. No other aorist forms are met with (excepting the causative).

10. Root *kruṣ* 'cry out.' Here occur *akruṣas* Çat. Br. XI, iv 2.19, and *akruṣat* Rig-Veda x 146.4. No other aorist forms.

11. Root *guh* 'hide.' Two active forms: *aghukṣat* Rig-Veda v 40.8; *aghukṣatām* Tāitt. S. ii 2.1¹. In RV. certain *a*-aorist forms are also made.

12. Root *diṣ* 'point.' The form *adikṣat* occurs once in the Çat. Br. (III, iii 3.11), and twice in the later language (Daçak.). *S*-aorist forms occur in RV.

13. Root *viṣ* 'enter.' The form *avikṣat* occurs five times in Çat. Br. (e. g. II, iii 4.2), and once in the Rāj. Tar. Forms of several other kinds of aorist are met with.

14-19. For the remaining roots, only single occurrences have been noted, as follows: From *druh* 'hate,' *adrukṣas* Ait. Br. viii

23.10: also *a*- and *s*-aorist forms. From *piś* 'crush,' *apikṣan* Çat. Br. IV, i 5.5. From *mih* 'mingere,' *amikṣat* Çat. Br. III, ii 2.21. From *lih* 'lick,' *alikṣat* Āpast. ix 17.5. From *dṛç* 'see,' I have noted *dṛkṣam* Kāth. i 10, but am unable to verify its correctness: various other aorists from this root occur. Finally, from *dih* 'smear,' the mongrel form *adhiṣus* (it ought to be either *adhiṣan* as *sa*-aorist, or *adhiṣus* as *s*-aorist) is once met with, at Jāim. Br. i 121 (see Proc. Am. Or. Soc. for May, 1883, or Journ. Am. Or. Soc., Vol. XI, p. cxlv). The apparently anomalous form *avṛtsan*, Bhāg. Pur. v 9.8 (Burnouf's edition), is a mis-reading for *avṛtsata*.

It may be worth while to put together here the few middle forms: they are, in the Rig-Veda, *dukṣata*, *ḍdhukṣata*, *dhūkṣata* (should be *dhukṣata*?), *dhukṣanta*, *dhukṣasva*, *amṛkṣanta*; in the Atharva-Veda, *dvikṣata*; in the Çatapatha-Brāhmaṇa, *akṛkṣathās*. Of the active inflection, all the forms can be instanced (with or without augment) except the 1st dual; but some of them only by a single example.

The whole *sa*-aorist formation, it thus clearly appears, is in just about the same degree sporadic in its character as is the *siṣ*-aorist. It shows itself, altogether, in the same number of roots as the latter. Except from half a dozen roots, it occurs only in a scattering form or two, and in the Rig-Veda it is made with any freedom from two roots only. It is limited to roots having such a final consonant as combines regularly with the sibilant to *kṣ*, and having *i* or *u* or *ṛ* as medial vowel. All these things are indicative of an inorganic formation, fortuitously started, and carried but a little way in its development. If we had the middle forms alone to deal with, we should not hesitate to pronounce them mere cases of the transfer of *s*-aorist forms to the mode of inflection of *a*-stems—such as appear abundantly elsewhere, both in conjugation and in declension. According to the Hindu grammarians (to whose teachings in such a case, where there appears no reason to the contrary, we may yield a guarded acceptance), the *sa*-forms are not made in the 1st sing. and 2d and 3d du. middle, but the *s*-forms are used instead—this would mean that in those persons no transfer chances to be made. Unluckily, not one of the three forms is quotable in the literature from a root having its aorist of the *sa*-formation. The Rig-Veda, to be sure, has once *adikṣi*; but, to show that this is not corresponding 1st sing. mid. to *adikṣat*, it has also *adīṣṭa*. So, too, it has once *vṛkṣi*, but beside it *avṛkta*:

this might, indeed, be root-aorist (Grassmann so classes it, on account of *avr̥k* and *avr̥jan*); but we find *avr̥kṣmahi*, an unmistakable *s*-aorist form, in the Jāminīya-Brāhmaṇa (ii 363). Whether, however, we shall be justified in definitively calling the middle *sa*-forms simple transfers, must depend on what explanation we can find for the active forms. As regards the latter, the difficulty in the way of accepting the theory of transfer is obviously the character of the root-vowel, which in the *s*-aorist has the second or *vr̥ddhi* degree of strengthening, while in the *sa*-forms it is weak: *adāikṣam* as 1st person would by no means make by analogy *adikṣas* etc.—as for example, *agamam* has made *agamas* etc.; and so in numerous other cases. This appears at present an insurmountable obstacle. But it may not always continue so, when once the question of origin of the active strengthening is settled. In all the active subjunctives of the *s*-aorist, we see only first or *gūṇa* strengthening, instead of *vr̥ddhi*; and that even this is of secondary origin in the history of the tense may be conjecturally inferred from its absence in the middle.

At any rate, all signs appear to me to point toward an accidental origin for the scattering persons of this aorist, and so to shut out the whole formation from any important part in the investigation of the history of the sigmatic aorist. The analogy, indeed, of *ādikṣam* and *ēdēξa*, which has given such satisfaction to beginners in comparative philology, and seemed to explain so much, has a deal of fallacy about it. The true analogue of *ādikṣam* would be *ēdīξov*; we have in the Sanskrit only the ordinary *a*-inflection, with no element at all corresponding to the fixed *a* of the Greek; and we have the weakest form of root-vowel.

There remain, then, as the true factors in Sanskrit with which we have to work in studying the genesis of the sigmatic aorist, the *s*-aorist and the *is*-aorist, and these alone. In respect to the sibilant, and to its occurrence without or with a preceding *i* (even to the isolated exception of the long *i* of root *grah*), this aorist-formation agrees with the *s*-future and with the desiderative. Until good evidence to the contrary can be shown, these three must be regarded as related formations; and no explanation can be accepted as satisfactory for one of them which does not apply also to the others.

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